

REMARKS

Claims 1-22 are pending. Claims 10, 11, 19 and 21 are amended with this response. Applicant notes with appreciation the provisional allowance of claims 2-9 and 12-18. Reconsideration of the application is respectfully requested in light of the following discussion.

I. REJECTION OF CLAIM 10 UNDER 35 U.S.C. § 101

Claims 10-11 and 21 were rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. Withdrawal of the rejection is respectfully requested for at least the following reasons.

To qualify as a 35 U.S.C. § 101 statutory process, a claim should positively recite the other statutory class (the thing or produce) to which it is tied, for example, by identifying the apparatus that accomplishes the method steps. (See, e.g., the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John, J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. §101”).

Accordingly, claims 10-11 have been amended to identify the apparatus that accomplishes the method steps and therefore withdrawal of the rejection is respectfully requested. If amended claims 10-11 are still found to be rejected under 35 U.S.C. §101 it is respectfully requested that the Office Action identify the features of the invention that would render the claimed subject matter statutory if recited in the claim. (See, e.g., § MPEP 2106.IV.B).

Claim 19 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claim 19 has been amended to recite a process which is performed on at least one computer, thereby being directed towards one of the four statutory categories. Accordingly, withdrawal of the rejection is respectfully requested.

II. REJECTION OF CLAIMS 1, 10-11, AND 19-22 UNDER 35 U.S.C. § 103(a)

Claims 1, 10-11, and 19-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Figure 5 and Figure 6 of the admitted prior art (APA). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claim 1 of the present invention relates to a tracking system comprising a first system performing a pilot-based phase and frequency tracking, a second system performing a data-based phase and frequency tracking, and a control system connected to said first system and to said second system gradually switching from the pilot-based phase and frequency tracking to the data-based phase and frequency tracking.

The Office Action admits that Figure 6 does not disclose a control system gradually switching from the pilot-based phase and frequency tracking to the data-based phase and frequency tracking, as recited in claim 1. (See, p. 4, Ins. 11-13). However, the Office Action states that one of ordinary skill in the art would have been motivated to gradually switch from the pilot-based phase and frequency tracking to the data-based phase and frequency tracking instead of switching over abruptly since the residual frequency errors are not completely eliminated. (See, p. 5, Ins. 5-9). However, the applicant respectfully disagrees that motivation to modify the prior art is present, as will be more fully appreciated below.

The Office Action references paragraph [0024] of the APA as providing motivation for the claimed modification. (See, p. 4, ln. 20 – p. 5, ln. 9) Paragraph [0024] states that “it is desirable to be able to use robust pilot tracking near the beginning of the transmission, but to switch over to data based tracking... [h]owever, this is difficult to achieve in practice due to the error properties of the pilot-based tracking method” (emphasis added). Therefore, the Office Action implies that the motivation to modify the APA teachings is to correct the error properties set forth in paragraph [0024].

However the APA does not provide a description how a manner of switching affects the error properties, consequently the APA provides no teaching that would motivate one skilled in the art to correct the error properties by switching

in a gradual manner. For example, while the APA references error properties, it does not provide for any teachings which would lead one skilled in the art to relate the manner in which a switching occurs to the error properties. In particular, ***there is no disclosure therein that would suggest to one of ordinary skill in the art the abruptness of the switching was the root of the problem, or that an alteration of the manner in which the switching was effectuated would affect the error properties.***

Instead the disclosed APA merely provides a statement defining the problem that is addressed by the important aspects that are disclosed in the present invention. Therefore, a person skilled in the art is therefore not prompted to integrate a control system into the technical teaching of the Prior Art in order to provide the claimed gradual switch.

Accordingly, since the APA fails to teach a control system and since the APA does not provide motivation to modify Figure 6, the structure set forth by the APA cannot represent the feature as present in Figure 6 since there is ***no (control) element in or motivation to add a control element to figure 6 by which this feature can be performed.*** Therefore, withdrawal of the rejection is therefore respectfully requested.

Claim 10 relates to a method for tracking rapid changes in frequency and phase offset in a receiver, comprising gradually switching from a pilot-based phase and frequency tracking to a data-based phase and frequency tracking with a control system. For the same reasons stated above, the APA fails to teach over claim 10. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 11 relates to a method for tracking rapid changes in frequency and phase offset in a receiver, comprising gradually reducing an effect of a pilot based phase and frequency tracking system and employing gradually decreasing weight factors in order to gradually reduce the said pilot-based phase and frequency tracking with a control system. For the same reasons stated above, the APA fails to teach over claim 11. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 19 relates to a computer program loaded into internal memory of a computer, comprising software code portions for performing a method comprising gradually reducing an effect of said pilot-based phase and frequency tracking. For the same reasons stated above, the APA fails to teach over claim 19. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 20 relates to a tracking system comprised in a receiver, comprising a control system connected to a first system and to said second system gradually reducing an effect of the first system and increasing an effect of said second system. For the same reasons stated above, the APA fails to teach over claim 20. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 21 relates to a method for tracking rapid changes in frequency and phase offset in a receiver, comprising gradually reducing an effect of a pilot-based phase and frequency tracking and increasing an effect of a data-based phase and frequency tracking system. For the same reasons stated above, the APA fails to teach over claim 21. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 22 depends upon claim 1 and adds further limitations thereto. Because the primary reference does not teach the present invention of claim 1, claim 22 is also not obvious over the cited art. Accordingly, withdrawal of the rejection is respectfully requested.

III. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, LLP127US.

Respectfully submitted,
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